REMARKS

Applicants' have reviewed the Examiner's remarks regarding the title and have modified the title to " METHOD, DEVICE AND SYSTEM FOR OPTICAL NAVIGATION".

Applicants respectfully point out that the MPEP language cited regarding the Abstract uses the word "should" in distinction to "must" and is considered to be voluntary.

Claims 1, 2, 7-12 and 14 -20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jackson (U.S. Patent No. 4,794,384).

Applicants respectfully traverse the rejection. Jackson clearly only discloses using optical speckle for navigation (e.g. see col. 4, lines 25-68, col. 5, lines 1-17) which is not related to "intensity patterns from specular reflection" as recited in Claim 1 as amended. For a discussion of the difference between "intensity patterns from specular reflection" and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Jackson nowhere discloses "intensity patterns from specular reflection" as disclosed in the instant application. Hence, Jackson does not disclose each and every element of Claim 1 as amended and Claim 1 as amended is allowable over Jackson. Claims 2 and 7 depend from Claim 1 and are allowable for at least the same reasons as Claim 1 as amended.

Claim 8 recites in part "means for converting said coherent specular reflection interference images into signals corresponding to relative motion between said mouse and said surface" and is not related to optical speckle disclosed by Jackson (e.g. see col. 4, lines 25-68, col. 5, lines 1-17). For a discussion of the difference between "coherent specular reflection interference images" and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Jackson nowhere discloses "intensity patterns from specular reflection" as discussed in the instant application. Hence, Jackson does not disclose each and every element of Claim 8 and Claim 8 is allowable over Jackson. Claims 9-12, 14 depend from Claim 8 and are allowable for at least the same reasons as Claim 8.

Claim 15 as amended recites in part "receiving a specularly reflected portion of said coherent light beam" and is not related to optical speckle disclosed by Jackson (e.g. see col. 4, lines 25-68, col. 5, lines 1-17). For a discussion of the difference between "a specularly reflected portion of said coherent light beam " and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Jackson nowhere discloses "a specularly reflected portion of said coherent light beam" as discussed in the instant application. Hence, Jackson does not disclose each and every element of Claim 15 as amended and Claim 15 as amended is allowable over Jackson. Claims 16-20 depend from Claim 15 and are allowable for at least the same reasons as Claim 15 as amended.

Claims 1, 2, 5-9, 11, 12, 14-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kinrot et al. (U.S. Patent No. 6,246,482). Kinrot et al. disclose "[t]he resulting interference gives rise to a beat signal that depends on the motion of the surface" (col. 13, lines 6-8) and "[t]he measured signal at the detector output oscillates at a frequency of v/Λ" (col. 18, lines 8-9) from which it is clear that Kinrot et al. do not disclose capturing an image or intensity pattern but rather homodyne/heterodyne detection. In contrast, Claim 1 as amended recites in part "said detector configured to capture intensity patterns from the specular reflection off said surface" (emphasis added). Hence, Kinrot et al. do not disclose each and every element of Claim 1 as amended and Claim 1 as amended is allowable over Kinrot et al. Claims 2 and 5-7 depend from Claim 1 and are allowable for at least the same reasons as Claim 1 as amended.

Claim 8 recites in part "means for converting said coherent specular reflection interference images into signals" (emphasis added) whereas Kinrot et al. disclose "[t]he resulting interference gives rise to a beat signal that depends on the motion of the surface" (col. 13, lines 6-8) and "[t]he measured signal at the detector output oscillates at a frequency of v/Λ" (col. 18, lines 8-9). Therefore, it is clear that Kinrot et al. do not disclose "converting said coherent specular reflection interference images into signals" (emphasis added) but rather homodyne/heterodyne detection. Hence, Kinrot et al. do not disclose each and every element of Claim 8 and Claim 8 is allowable over Kinrot at al. Claims 9, 11, 12 and 14 depend from Claim 8 and are allowable for at least the same reasons as Claim 8.

Claim 15 as amended recites in part "said detector configured to capture intensity patterns from the specular reflection off said surface" (emphasis added). Kinrot et al. in contrast disclose "[t]he resulting interference gives rise to a beat signal that depends on the motion of the surface" (col. 13, lines 6-8) and "[t]he measured signal at the detector output oscillates at a frequency of v/Λ" (col. 18, lines 8-9) from which it is clear that Kinrot et al. do not disclose capturing an image or intensity pattern but rather homodyne/heterodyne detection. Hence, Kinrot et al. do not disclose each and every element of Claim 15 as amended and Claim 15 as amended is allowable over Kinrot et al. Claims 16-18 and Claim 20 depend from Claim 15 and are allowable for at least the same reasons as Claim 15 as amended.

Claims 1, 2, 4, 5, 8-11 and 14-19 stand rejected under 35 U.S.C. 102(e) as being anticipated by Nahum et al (U.S. Patent No. 6,642,506). Nahum et al. disclose a "speckle-image-based optical position transducer having improved mounting and directional sensitivities" (e.g. see title). which is not related to "intensity patterns from specular reflection" as recited in Claim 1 as amended. For a discussion of the difference between "intensity patterns from specular reflection" and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Nahun et al. nowhere disclose "specular reflection" as disclosed in the instant application. Hence, Nahun et al. do not disclose each and every element of Claim 1 as amended and Claim 1 as amended is allowable over Nahun et al. Claims 2, 4 and 5 depend from Claim 1 and are allowable for at least the same reasons as Claim 1 as amended.

Claim 8 recites in part "means for converting said coherent specular reflection interference images into signals corresponding to relative motion between said mouse and said surface" and is not related to a "speckle-image-based optical position transducer having improved mounting and directional sensitivities" (e.g. see title) dislosed by Nahun et al. For a discussion of the difference between "coherent specular reflection interference images" and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Nahun et al. nowhere disclose "specular reflection" as disclosed in the instant application. Hence, Nahun et al. do not disclose each and every element of Claim 8 and Claim 8 is allowable over Nahun et al. Claims 9-11 and 14 depend from Claim 8 and are allowable for at least the same reasons as Claim 8.

Claim 15 as amended recites in part "receiving a specularly reflected portion of said coherent light beam" and is not related to a "speckle-image-based optical position transducer having improved mounting and directional sensitivities" (e.g. see title) disclosed by Nahun et al. For a discussion of the difference between "a specularly reflected portion of said coherent light beam " and optical speckle, the Examiner is referred to the discussion on page 5, lines 6-25 of the Applicants' application as filed. Nahun et al. nowhere disclose "specular reflection" as disclosed in the instant application. Hence, Nahun et al do not disclose each and every element of Claim 15 as amended and Claim 15 as amended is allowable over Nahun et al. Claims 16-19 depend from Claim 15 and are allowable for at least the same reasons as Claim 15 as amended.

Claims 3, 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (U.S. Patent No. 4,794,384). In view of the arguments presented above with regard to Jackson, the Examiner's arguments are considered moot and Claims 3, 4 and 13 are allowable.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (U.S. Patent No. 4,794,384) in view of Kinrot et al (U.S. Patent No. 6,246,482). In view of the arguments presented above with respect to Jackson and Kinrot et al., the Examiner's arguments are considered moot and Claims 5 and 6 are allowable.

Therefore, Claims 1-20 are in condition for allowance and allowance is respectfully requested. Should the Examiner wish to discuss any aspect of the application he is invited to telephone the undersigned at (650) 485-5904.

Respectfully submitted,

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